Long-Acting Options: Lessons Learned from Prevention to Inform Treatment

Ariane van der Straten, PhD, MPH
CAPS, UCSF and ASTRA Counseling
Chair SBSWG, HIV Prevention Trials Network

Adherence 2023 • June 11-13 • Puerto Rico
1. HIV update and current LA-biomedical strategies
2. User-Journey and “bumps” on the adherence road
3. Access
4. Choice- providing options without coercion
5. Tools to support adherence
1. HIV update: South Africa 2022

<1% of sexually active population
LA-biomedical interventions for PrEP & Rx

- 2-month IM injection
- 1 month ring
- Weekly-monthly Pill
- 1-year Implant
- 1-month film
- 6-month SC injection
- 3-month ring
- Approved

Nachega, 2023
Cresswella, 2022
AVAC website, 2023
# Pros and Cons of LA-Injectables

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Pros</th>
<th>Cons</th>
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<tbody>
<tr>
<td>PrEP</td>
<td>Longer dosing intervals&lt;br&gt;Invisibility/discretion/privacy&lt;br&gt;DOT for injection compliance&lt;br&gt;Modality preferred by users&lt;br&gt;Low user burden (set it and forget it)</td>
<td>PK tail requires alternate coverage&lt;br&gt;ISR/painful to inject- Persiant mark?&lt;br&gt;HCP time burden/skills required&lt;br&gt;Highly medicalized option/clinic attendance&lt;br&gt;Non-reversible</td>
</tr>
<tr>
<td>Rx</td>
<td>Same as above</td>
<td>Risk of virologic failure&lt;br&gt;ISR/painful to inject&lt;br&gt;Burden on HCP and users&lt;br&gt;Requires skilled staff /high level of monitoring needed (baseline resistance, HBV, TB, DDI, etc)</td>
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Lorenzetti, 2023 (forthcoming), Nachega, 2023
Cab-LA: adherence & preference in PrEP trials

<table>
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<tr>
<th>Pivotal trials</th>
<th>HPTN-083 (MSM+TGW)</th>
<th>HPTN-084 (CGW)</th>
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<tbody>
<tr>
<td>Injection phase (p-y covered by injections)</td>
<td>91.5%</td>
<td>93%</td>
</tr>
<tr>
<td>Truvada arm: TFV concentration &gt;40ng/ml (daily dosing)</td>
<td>74.2%</td>
<td>46%</td>
</tr>
<tr>
<td>Preference Cab-LA vs. Truvada (preliminary data)</td>
<td>96% (in US)</td>
<td>~88%</td>
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HPTN-083: OLE decreased adherence in both Cab-LA & Truvada groups:

<table>
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<tr>
<th>Inadequate protection</th>
<th>Blinded phase</th>
<th>OLE</th>
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<tr>
<td>&lt;4 doses/wk of Truvada</td>
<td>27%</td>
<td>61%</td>
</tr>
<tr>
<td>Missed injection</td>
<td>9%</td>
<td>19%</td>
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Fonner, 2023
2. User Journey(s) with PrEP Adherence

- Awareness
- Introduction
- Initiation & Implementation
- Persistence

- Familiarity
  - Trying out
  - Burden/fit

- Fatigue
  - Forgetfulness
  - Life trade-offs

- Access & Choice
  - Switch
  - PAUSE
  - Re-assessment

- Re-initiation

- STOP
  - Discontinuation

References:
Cellum, 2022
Rousseau, 2021
O’Rourke, 2021
Figure 1: A socioecological model of barriers to PrEP adherence

Health system
- Availability of PrEP
- Cost
- Provider stigma and comfort
- Limited delivery models
- System complexity
- Regulatory obstacles

Community, partners, and family
- Stigma
- Discrimination
- Lack of social support

Individual
- Knowledge of HIV prevention need
- Competing priorities
- Inconvenience
- Care engagement
- Poor mental health (e.g., depression)
- Substance use
- Pill burden
- Side-effects
- Forgetfulness

Haberer, Lancet HIV, 5/2023
3. Access

• Adherence to a medication is impossible without access.
• Moreover, we need to go beyond providing current users with more options:
  – Increased equity means reaching those unable to use current options so as to expand coverage
  – Need for delivery systems innovations
    • Community delivery (of PrEP or Rx) brings PrEP to the user, meeting them where they are physically and mentally.

http://bit.ly/USHIVpolicyproject; Haberer 2023
Barriers to access for LA-injection

Affordability
- Time & cost of travel to clinic
- Wait time
- Time away from job

Forgetting to Schedule or go to the clinic appointment

HCP friendliness, skills, cultural competence

Lorenzetti, 2023 (forthcoming)
4. Choice

Options → Choices → Coverage → Impact
Benefits of Product Choice for Contraception

- WHO Systematic Review
- 231 articles, limited high quality evidence

- **Increased choice** associated with:
  - Increased contraception uptake
  - Better health outcomes (fewer pregnancy, STIs)

- Those given contraceptive choice continue their chosen method to a greater degree than those denied choices

- Contraceptive needs and choices vary over a person’s reproductive life

Contraceptive Prevalence Rate

Index of Contraceptive Availability

12% increase contraceptive prevalence for EACH additional method

How much will it be for PrEP?
INFORMED choice is Key

• Lessons learned from LARCs promotion in the US (tiered-effectiveness patient counseling): Ensure that people who want these methods have access to the full range of options without coercion.

• Implant rollout in RSA: decline in uptake, early implant removals & challenges in service delivery ->
  – Inadequate HCP provider training
  – Lack of patient-centered counseling
  – Inadequate provision of Information about side effects
  – Rumors and misconceptions

Pleaser 2017, Krogstad, 2020, Brandi 2019
MTN034/REACH: a RCT focusing on Choice

“Vaginal ring”

Period 1 crossover

“Oral PrEP”

Period 2 crossover

Choice period

- Ring (67%)
- Oral PrEP (31%)
- Neither product (2%)

K. Ngure CROI 2022, Cellum, C. (forthcoming)
Provider-Participant relationship

Person-centered counseling

MI

Empathy

Menu of Adherence support

Roberts, 2023 (forthcoming)
Study-supported informed Choice

**Informed choice** for HIV prevention was – itself – a strategy for overcoming challenges with product use.

Overcoming challenges led to reaching HIV prevention goals.

Reaching HIV prevention goals empowered participants to feel more agency over broader life goals.

*Shapley-Quinn (AIDS Impact 2023)*
Shared decision-making approach

Fig. 1 Applying principles of reproductive justice to sexual and reproductive health technologies

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<th>LARC</th>
<th>HIV Prevention Technologies</th>
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| Center Those Who Historically Have Been Marginalized and Excluded | • Acknowledge the historical & social context of healthcare visits
• Acknowledge individuals’ lived experience |
| Eliminate Barriers and Create Systems to Facilitate Access | • Appropriately describe what LARC is, including side effects
• Make methods readily available to those who want them |
| Provide Person-Centered Services | • Respect the decision of those who choose not to use LARC
• Assist those who wish to discontinue LARC
• Maintain focus on meeting individual’s needs, rather than a public health goal |

Logan & Seidman, 2021; Sewell, 2021
5. Tools to support Adherence

Ensuring correct application (MAP)

Visually Intuitive DLF

Self-monitoring of protection levels (DOT-DIARY)
Summary and conclusion

• Long(er)- acting strategies can be transformative
• **BUT:** innovative biomedical products require concurrent innovation in:
  – Shared or client-centered decision-making devoid of coercion or HCP bias
  – User and HCP relationship quality (trust, non-judgmental etc.)
  – Informed choice driven by personal preference and circumstances
  – Improved access, especially to those not currently using PrEP/Rx
  – Support tools and people to mitigate/overcome adherence challenges

• Adherence is a journey (and not a lonely one): allow opportunities to change, switch or pause Px/Rx strategies
Acknowledgments

MK Shapley-Quinn
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J. Velloza
S. Buchbinder

→ Monday Poster #1211

Ginny Fonner
Lara Lorenzetti
Thank you!

Contact: arianevds@gmail.com
Engagement into care: Rx (& PrEP) Journey

INFLUENTIAL FACTORS:
- Contextual factors
- Health system factors
- Individual factors

ENGAGEMENT BEHAVIOUR:
- Engagement with services
  - Retention
  - Adherence
  - Active self-management
- Engagement with treatment

TREATMENT OUTCOMES:
- Sustained treatment success

ANTIRETROVIRAL PROGRAMME BENEFITS:
- Societal benefit
- Public health benefit
- Individual benefit

balance